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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,425	01/21/2004	Masahiko Mutoh	4468-008B	1235

7590

09/20/2005

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EXAMINER

AHN, SAM K

ART UNIT	PAPER NUMBER
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2637

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,425

Applicant(s)

MUTOH, MASAHIKO

Examiner

Sam K. Ahn

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on pre-amdt, 01/21/04.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10, 12, 14, 16, 18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 10, 12, 14, 16, 18 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/679,079.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>121</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on pages 3-9, the specification describes limitations of each of the claims including the claims already cancelled. Appropriate correction is required.
2. The abstract of the disclosure is objected to because of the following informalities: the abstract does not appear to describe the embodiment of figure 10, the abstract is not in a single paragraph, and selected figure drawing is not necessary. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 10,12,14,16,18 and 21 are objected to because of the following informalities:

In claims 10,16,18 and 21, lines 3,4,5 and 4, respectively, delete "the plurality n" and insert "the predetermined plurality n".

In claims 10,16,18 and 21, lines 5,5,6 and 5, respectively, delete "both of them" and insert "both of the corresponding (F1 – Fn) and said symbol data DO(t)".

In claims 10,16,18, lines 6,6,7, respectively, please define that "n" and "t" are integers.

In claims 10,16,18 and 21, lines 7,7,8 and 7, respectively, delete "said symbol" and insert "said multiplied symbol".

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In claims 10,16,18 and 21, lines 8,8,10-11 and 8 respectively, delete "for them" and insert "for said multiplied symbol data and said symbol data $DO(t)$ ".

In claims 10,16 and 21, lines 10,10 and 10, respectively, delete "said additional" and insert "said resultant additional".

In claims 10,16,18 and 21, lines 13,13,14 and 14, respectively, delete "between them" and insert "between said corrected reference signal $R(t)$ and said measurement signal $S(t)$ ".

In claim 18, line 2, delete "the computer" and insert "a computer".

In claim 18, line 12, respectively, delete "said addition" and insert "said resultant addition".

Claims 12 and 14 directly depend on claim 10. Appropriate correction is required.

Allowable Subject Matter

4. Claims 10,12,14,16,18 and 21 would be allowable if rewritten or amended to overcome the claim objections, set forth in this Office action.
5. The following is a statement of reasons for the indication of allowable subject matter:
Present application discloses a correlation system identifying a frequency offset in a CDMA system by correlating a spreaded reference frequency signal with the received spreaded signal. Although prior art does teach identifying a frequency offset, prior art does not explicitly teach the combination of providing plurality of reference frequencies coupled to an exclusive OR gate wherein the symbol data

along with the ex-ORed frequency data are summed, then spreaded for correlation.

Therefore, prior art does not teach or suggest in combination the limitations claimed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sitlwell et al. USP 6,137,773 teach in a CDMA identifying frequency offset.

Molnar USP 6,298,227 B1 teaches plurality of signal paths in a CDMA receiver wherein each of the paths receives a received signal and corresponding frequency offset value for correlation.

Froehling et al. USP 6,560,298 B1 teach plurality of frequency offset computation for correlation.

7. This application is in condition for allowance except for the following formal matters:

Claim objections

Specification

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

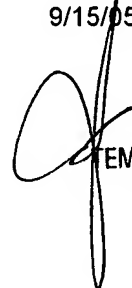
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn
9/15/05


TEMESHBEN GHEBRETINSAE
PRIMARY EXAMINER
SAS